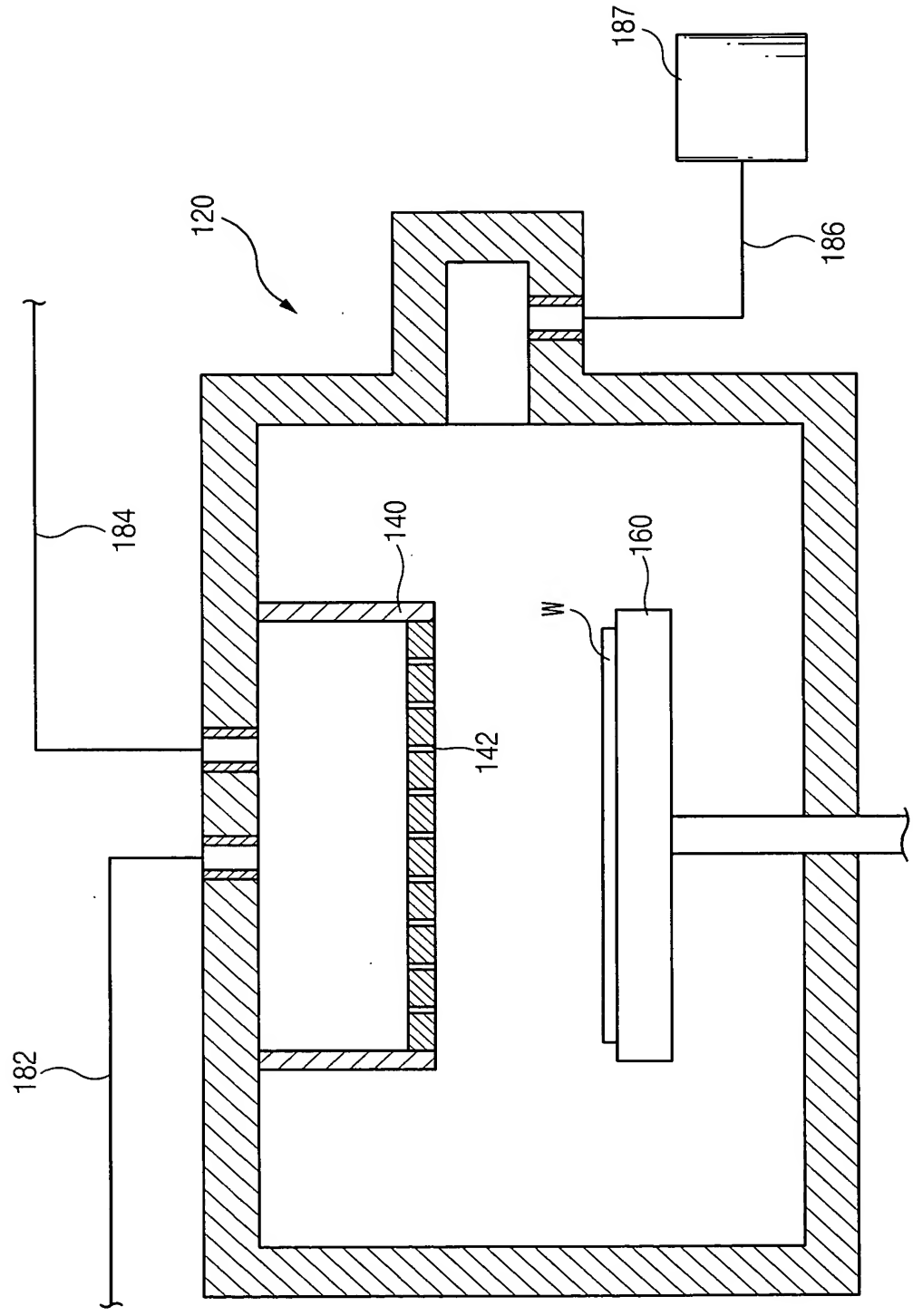


Fig. 1

(RELATED ART)



This cross-sectional diagram illustrates a semiconductor device assembly. A substrate 210 is shown with various layers and components. A central layer 220 is labeled with 'W'. A series of vertical structures 230 are positioned on the substrate, each containing a core 231 and surrounded by a shell 232. These structures are connected to a common bus or pad 233. A pump 247 is connected to the system via a tube 246. Other labels include 212, 214, 216, 222, 234, 235, 236, 238, 242, 244, 245, 250, 252, 254, and 256.

246

[illegible]

PUMP

Fig. 4

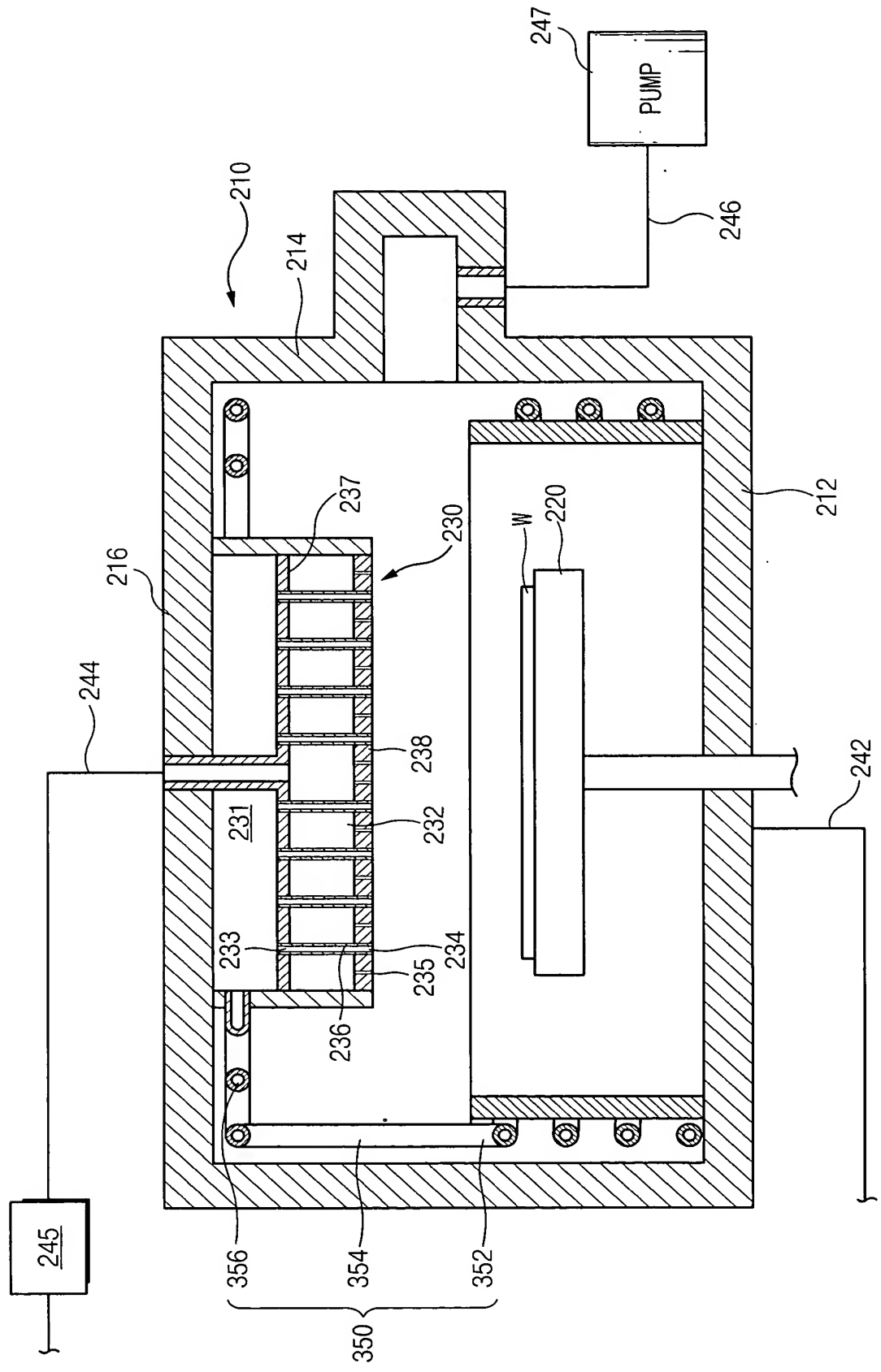


Fig. 5

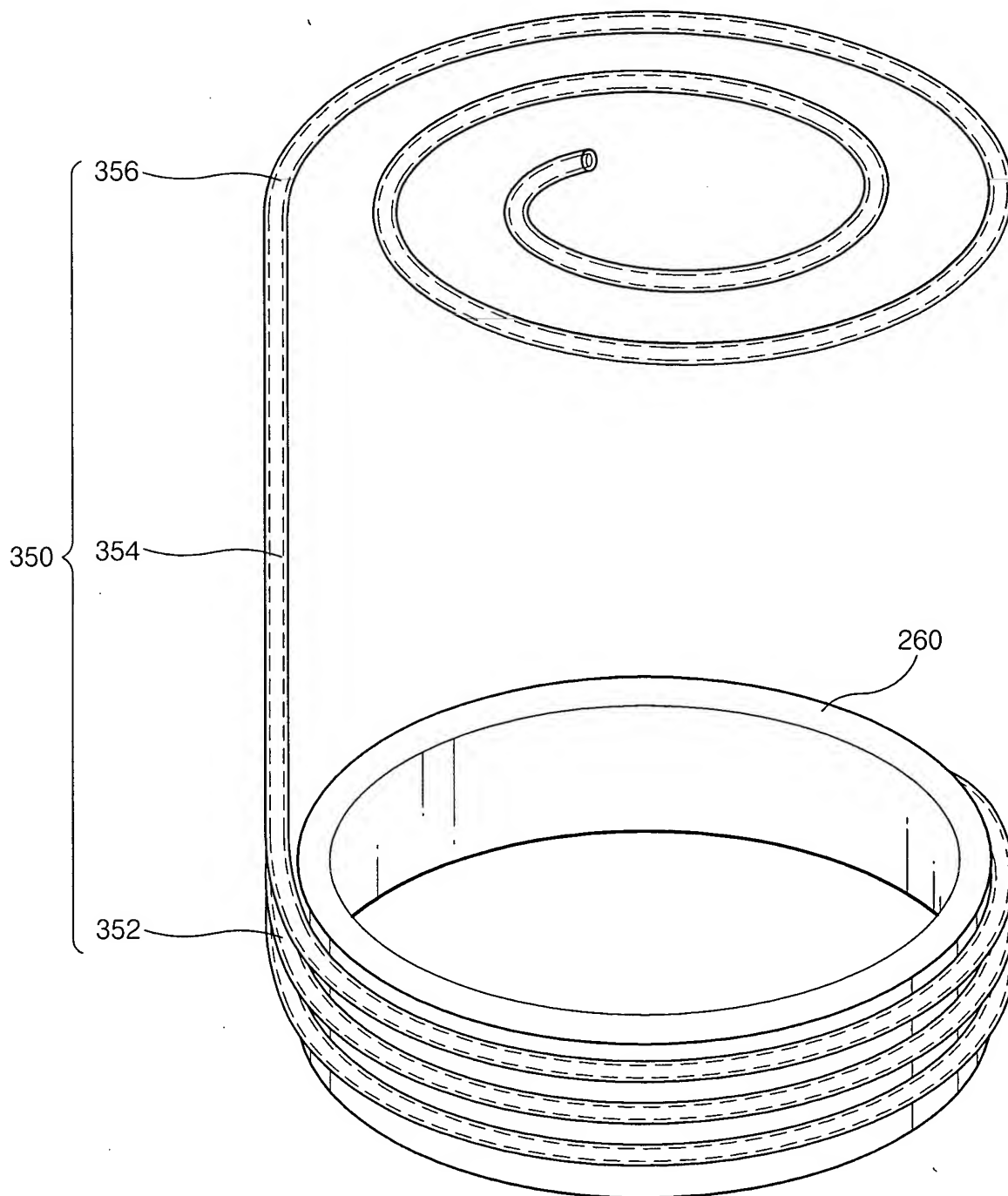


Fig. 6

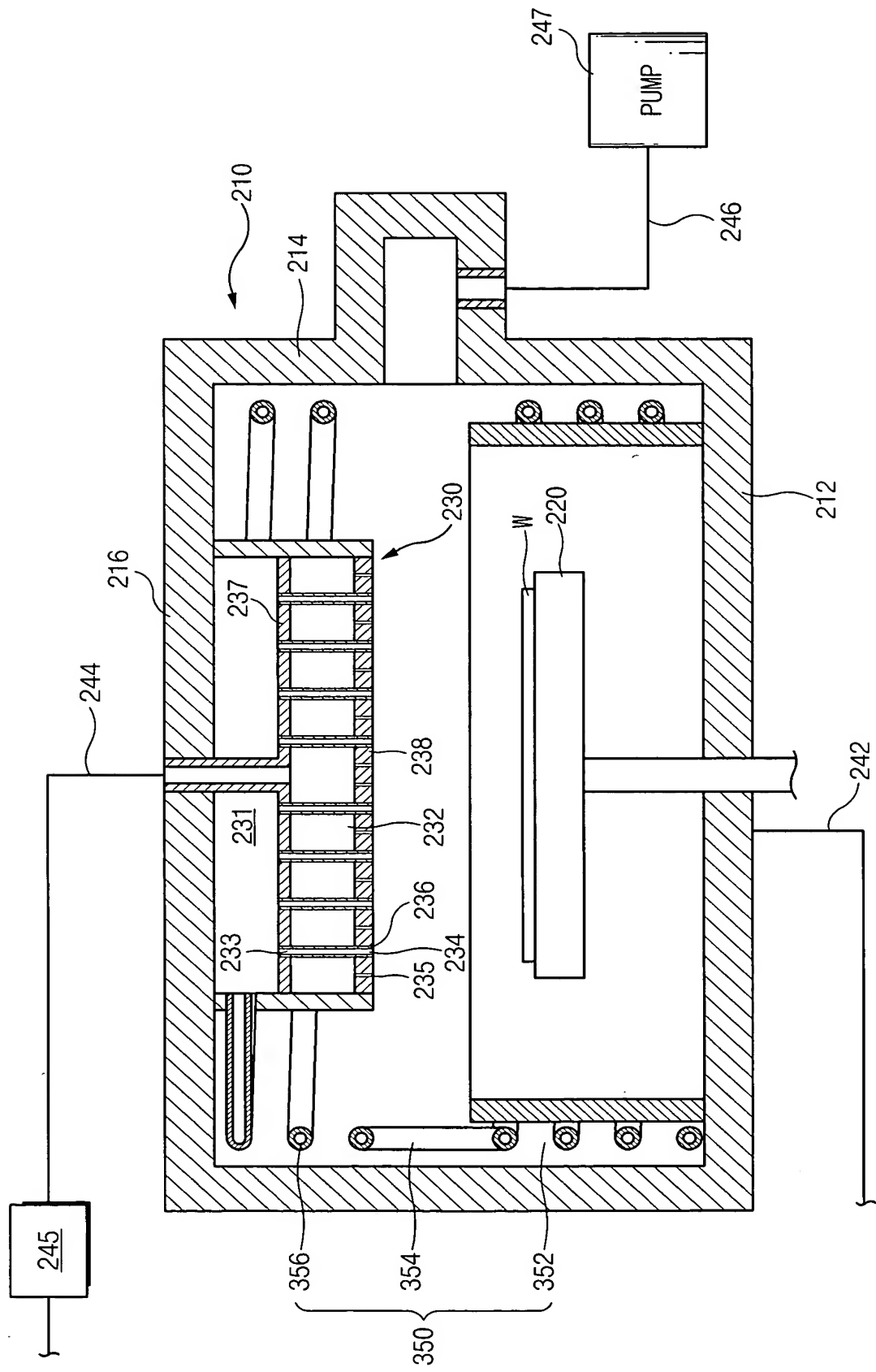


Fig. 7

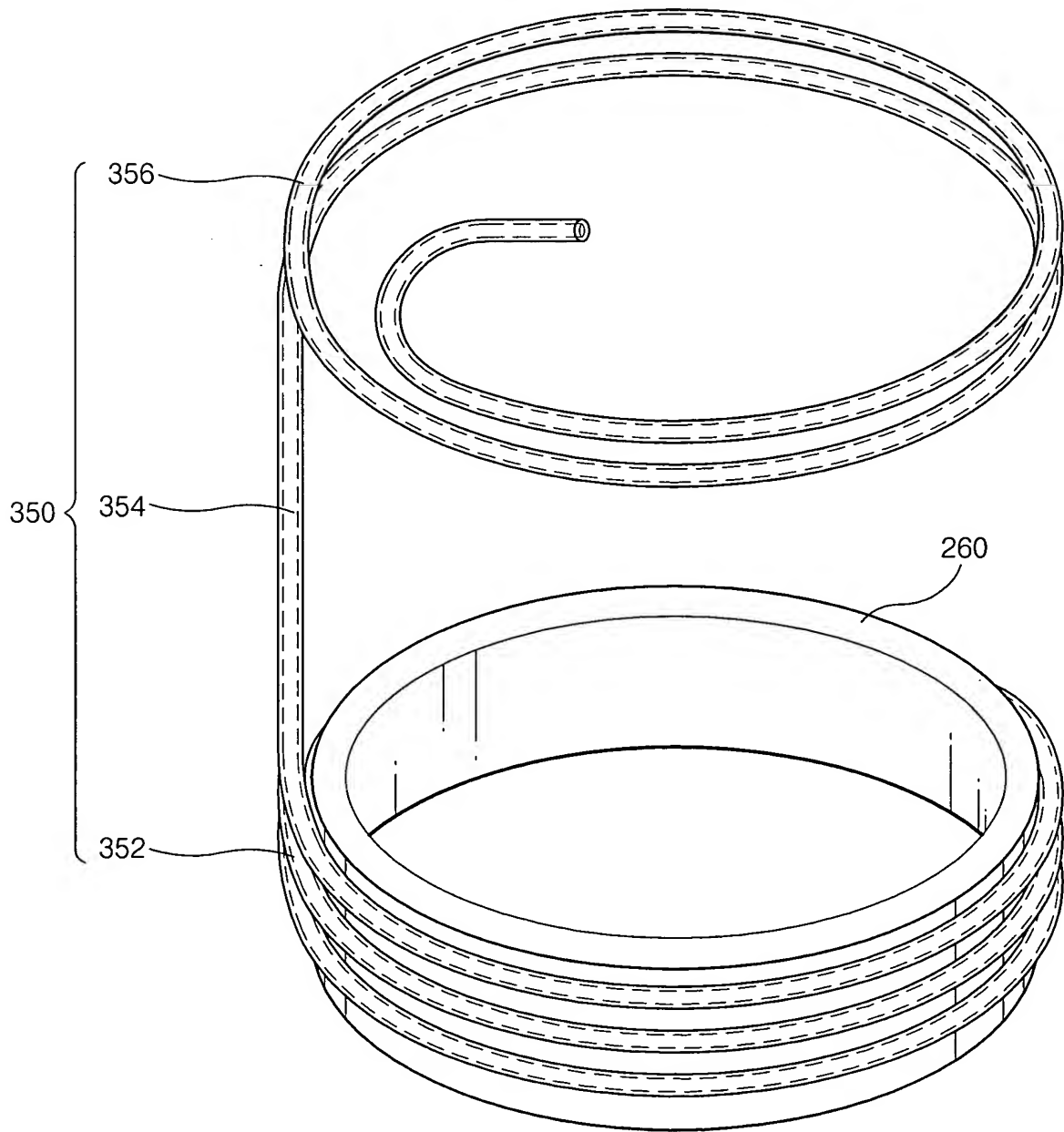


Fig. 8

